

D 32746

Name.....

Reg. No.....

**FIRST SEMESTER M.Sc. (CBCSS) [REGULAR/SUPPLEMENTARY] DEGREE
EXAMINATION, NOVEMBER 2022**

Zoology

ZOL1C01—BIOCHEMISTRY AND CYTOGENETICS

(2019 Admission onwards)

Time : Three Hours

Maximum Weightage : 30

Part A (Biochemistry)I. Answer any *three* of the following :—

- 1 Transamination.
- 2 HDL and LDL.
- 3 Micro RNA.
- 4 Z DNA.
- 5 Heparin.

(3 × 2 = 6 weightage)

II. Answer any *three* of the following :—

- 6 Regulation of fatty acid metabolism.
- 7 Role of ATP in the biological system.
- 8 Structure of hyaluronic acid and chondroitin sulphate.
- 9 Quaternary structure of protein.
- 10 Structure and function of Vitamin A.

(3 × 3 = 9 weightage)

III. Answer any *one* of the following :—

- 11 Explain Electron transport system in mitochondria. Add a note on the mechanism of oxidative phosphorylation.
- 12 Discuss on factors affecting the enzyme action. Add a note on enzyme inhibition.

(1 × 5 = 5 weightage)

Turn over

Part B (Cytogenetics)

IV. Answer any *one* of the following :

13 Peroxisomes.

14 Glycocalyx.

(1 × 2 = 2 weightage)

V. Answer any *one* of the following :

15 Chemical composition of mitochondria.

16 Types of receptor desensitization.

(1 × 3 = 3 weightage)

VI. Answer any *one* of the following :

17 Explain the molecular organization of cell membrane. Add a note on membrane domains.

18 Describe the structural changes in chromosomes. Add a note on interrupted genes.

(1 × 5 = 5 weightage)